

RESEARCH DESIGN AND METHODS

Research Design

The two primary research domains applicable to the C. Kimmey Tenant Farm Site are the domestic economy of the site, and changes in the local and regional, social and economic landscape (De Cunzo and Catts 1990). Two related themes within these domains, changes in agriculture and settlement patterns, are the most important and are related to research questions noted in other studies of Kent County historical archaeology (Custer, Bachman, and Grettler 1986, 1987).

The period spanning 1830-1940 in Delaware history saw three critical changes that could be studied through further archival and anthropological research at the C. Kimmey Tenant Farm Site (De Cunzo and Catts 1990):

- 1) transportation developments,
- 2) economic and agricultural change with the development of large-scale fruit, truck produce, legume, and dairy industries that took advantage of changes in transportation and the expanding regional urban markets, and
- 3) changing agricultural labor and tenancy patterns.

Elements of these three key changes were investigated at the C. Kimmey Tenant Farm Site.

The two most important transportation developments in mid-nineteenth century Delaware were the completion of the Delaware railroad trunkline to Seaford in 1856, and the increasingly widespread use of steamboat transportation in the second and third quarters of the nineteenth century. The earlier completion of the Chesapeake and Delaware Canal in 1829 was very important and the use of steamboats increased. The C. Kimmey Tenant Farm Site was within one half mile of a boat landing on the St. Jones River and within two miles of an established railroad crossing. Thus, the inhabitants of the Kimmey Site were able to participate in the economic opportunities brought about by improved transportation in the nineteenth and twentieth centuries. In addition to easy access to railroad transportation, the C. Kimmey Tenant Farm Site was also located along Route 113, a major north-south road in central Delaware. The site could also have been serviced by public landings on the St. Jones River in Lebanon and Dover, and by a number of private landings on the river, most definitely by one on the Kimmey property itself.

Transportation improvements and the presence of large, nearby urban markets in the nineteenth century stimulated the commercial production of perishable, and potentially very profitable, agricultural goods in central Delaware. The demand for Delaware milk, peaches, fodder, and truck produce in nearby Wilmington, Philadelphia, Baltimore, and New York encouraged

commercial production. The number of cultivated acres in Kent County alone rose from 283,000 acres in 1850 to 338,000 acres in 1900 (Bausman 1940:10). Thus, the C. Kimmey Tenant Farm was in operation during the nineteenth and early twentieth centuries, a period of agricultural and population expansion. More land was farmed, more owner- and tenant-occupied farms were established, and the crops grown on them were changing. Corn and wheat, the previous staples, were replaced with orchard crops, truck produce, and dairy products. The changing composition of crops produced in central Delaware continued to change into the twentieth century as peaches and corn were replaced by legumes, alfalfa, and an even greater emphasis on dairy products and truck produce.

Archival and archaeological data from the Phase II research indicate that the primary agricultural change affecting the C. Kimmey Tenant Farm Site was the trend towards increased milk and dairy production. This trend began in the mid-nineteenth century and continued into the early twentieth century and was one of the primary transportation and urban market related changes that occurred in central Delaware. One goal of the archaeological research, therefore, was to see if there were changes in the layout and composition of the farmstead related to the shift to dairy operations and the shift from a tenant farm to an owner-occupied one. More generally, archaeological excavations sought to identify changes in spatial utilization at the site as the agricultural activities on the farm changed over time. Specific activities studied included outbuilding placement and trash disposal patterns.

Shifts in agricultural activities may also have affected the economic status of the farm's inhabitants and this change may have caused alterations in consumer behavior. The artifacts and faunal remains provide the best clues to changing consumer patterns, and analyses of these data were directed toward identifying shifts from use of home-grown foods to increased frequency of purchasing of store-bought foods, medicines, and other consumer products. In sum, a major goal of the research was to identify signs of changes in everyday lives of the C. Kimmey Tenant Farm Site inhabitants that might be related to changes in local and regional agricultural economies.

Archival Research Methods

Previous archival research (Grettler et al. 1991a) provided a basic chronology of site ownership and site function from the mid-seventeenth century to the present, and identified much of the pertinent archival material. Therefore, archival research for the Phase III data recovery investigations of the C. Kimmey Tenant Farm Site focused on providing more detailed historical data about the site's occupants and its function through time. The archival research also provided the social and economic historical context for the site as required by the Historical Archaeological State Plan (DeCunzo and Catts 1990). Archival research was thus specifically focused on clarifying periods of tenant occupancy versus owner occupancy, as well as pinpointing a construction date for the C. Kimmey Farm house. Tax assessments for East Dover Hundred dating from 1797 to 1860 were compiled from the Delaware State Archives. Research of other scholars provided much of the data needed to investigate the historic context. Research by architectural historians was also consulted. Additional information was obtained from deed records, probate documents, surveys, and other primary sources at the Delaware State Archives.

PLATE 4

Plow Zone Test Excavations

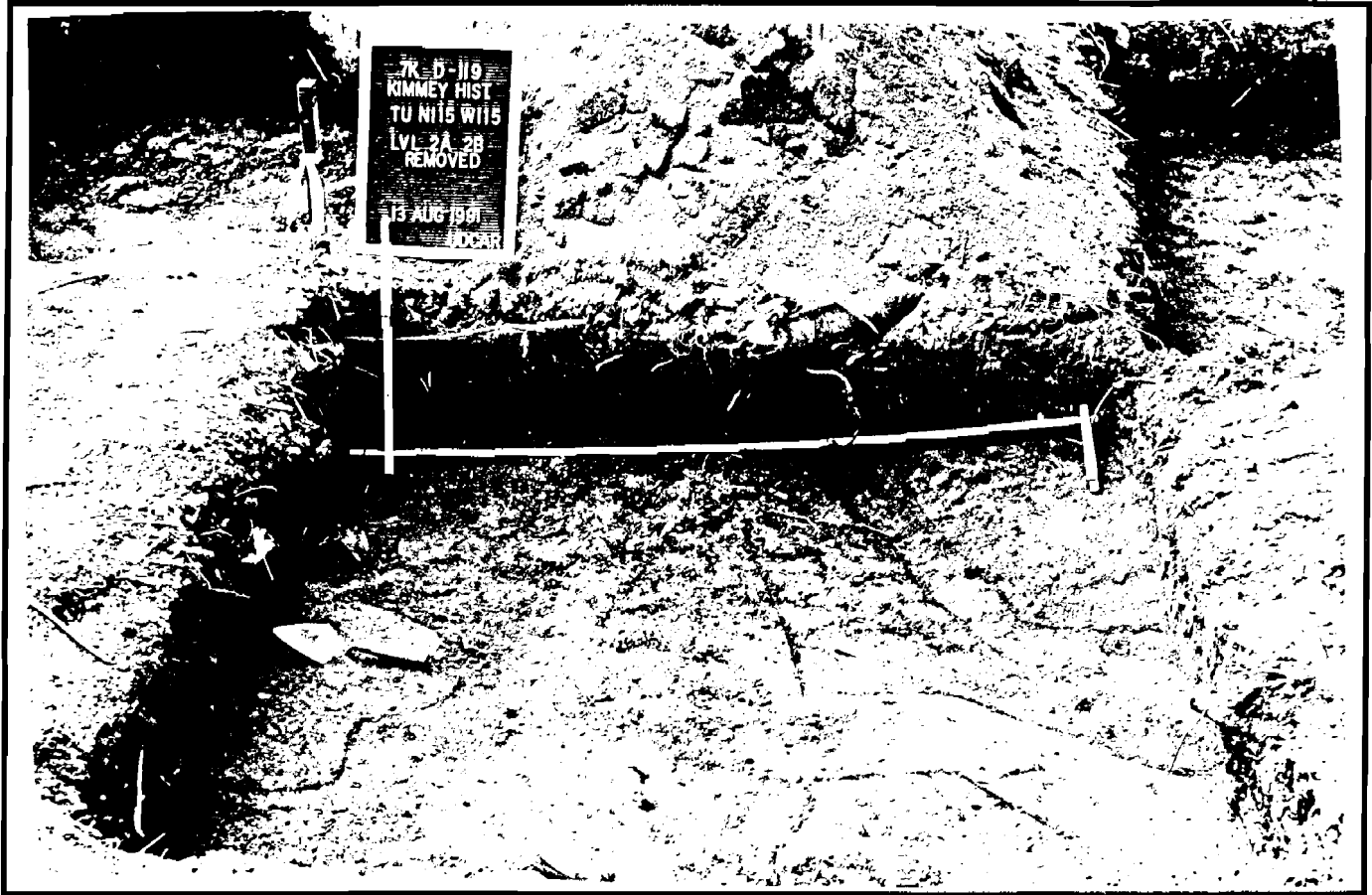


Field Research Methods

Phase III field investigations at the C. Kimmey Tenant Farm Site began with the establishment of the site grid which covered a 220- x 300-foot area. Plow zone soils were then excavated from a 12 percent stratified, systematic, aligned sample (Plog 1976) of 5- x 5-foot units from the main portion of the site. The sample consisted of randomly selected 5- x 5-foot units from within the larger 10- x 10-foot subunits. All plow zone soils were screened through 1/4-inch wire mesh, (Plates 4 and 5) and all artifacts found were bagged according to test unit provenience and grid coordinates.

PLATE 5

Typical Plow Zone Test Unit



Following the sampling of the plow zone, the thick overgrowth covering the site was removed (Plates 2, 6, and 7). After the site was cleared, a backhoe was employed to carefully remove the plow zone from the site area. The backhoe procedure was monitored by UDCAR archaeologists, and all features were identified and mapped. Features were fully excavated, recorded, mapped, and profiled (Plate 8).

All soils excavated from the features were screened and artifacts were bagged by provenience (Plate 9). Soil samples were collected from each of the 5- x 5-foot plow zone test units and from the subsurface 10- x 10-foot subunits. Chemical analyses of the soil samples were conducted by the Soils Laboratory of the University of Delaware College of Agriculture. Black and white photographs and/or color slides were taken of selected features, soil excavation profiles, and test unit plan views.

PLATE 6

Site Before Clearing

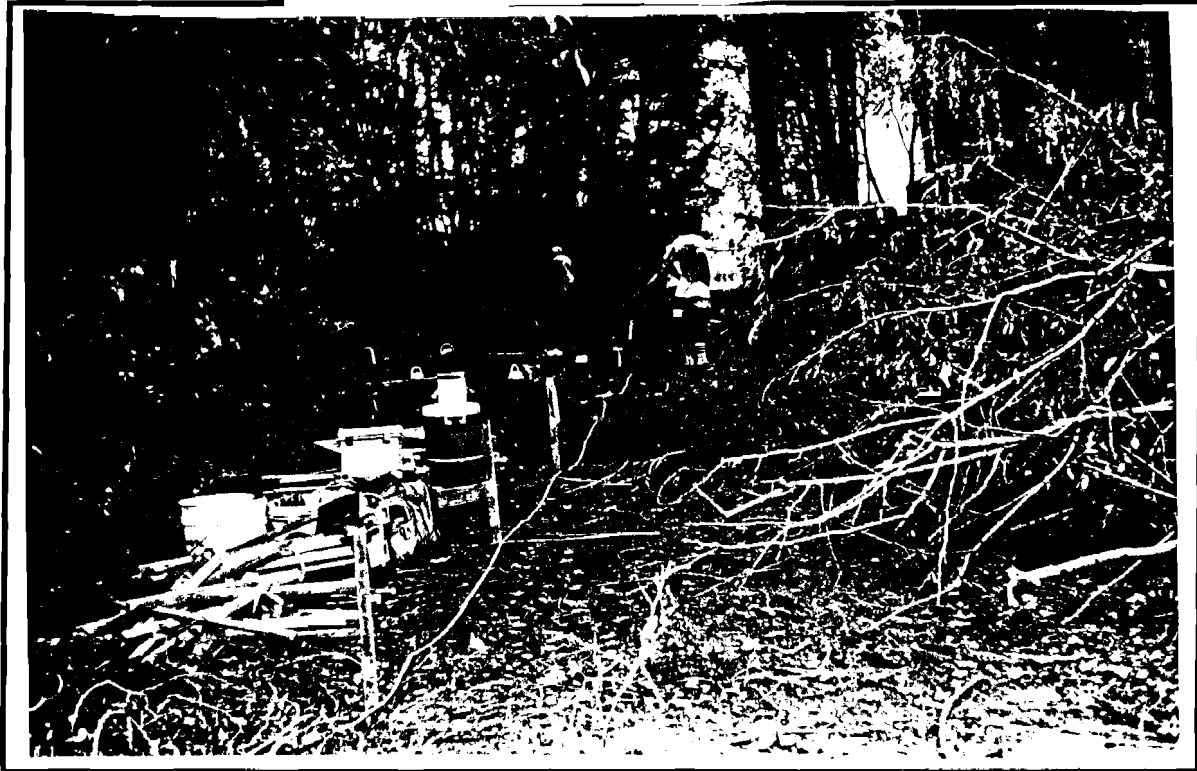


PLATE 7

Site During Clearing

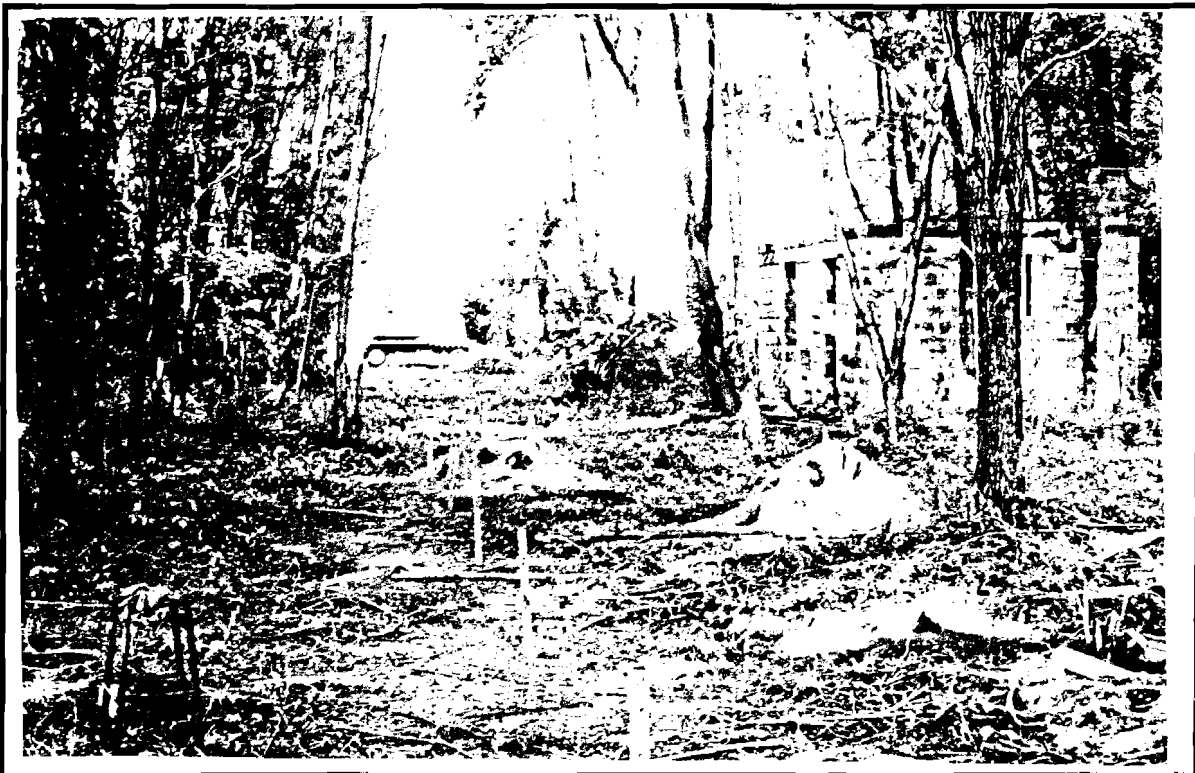
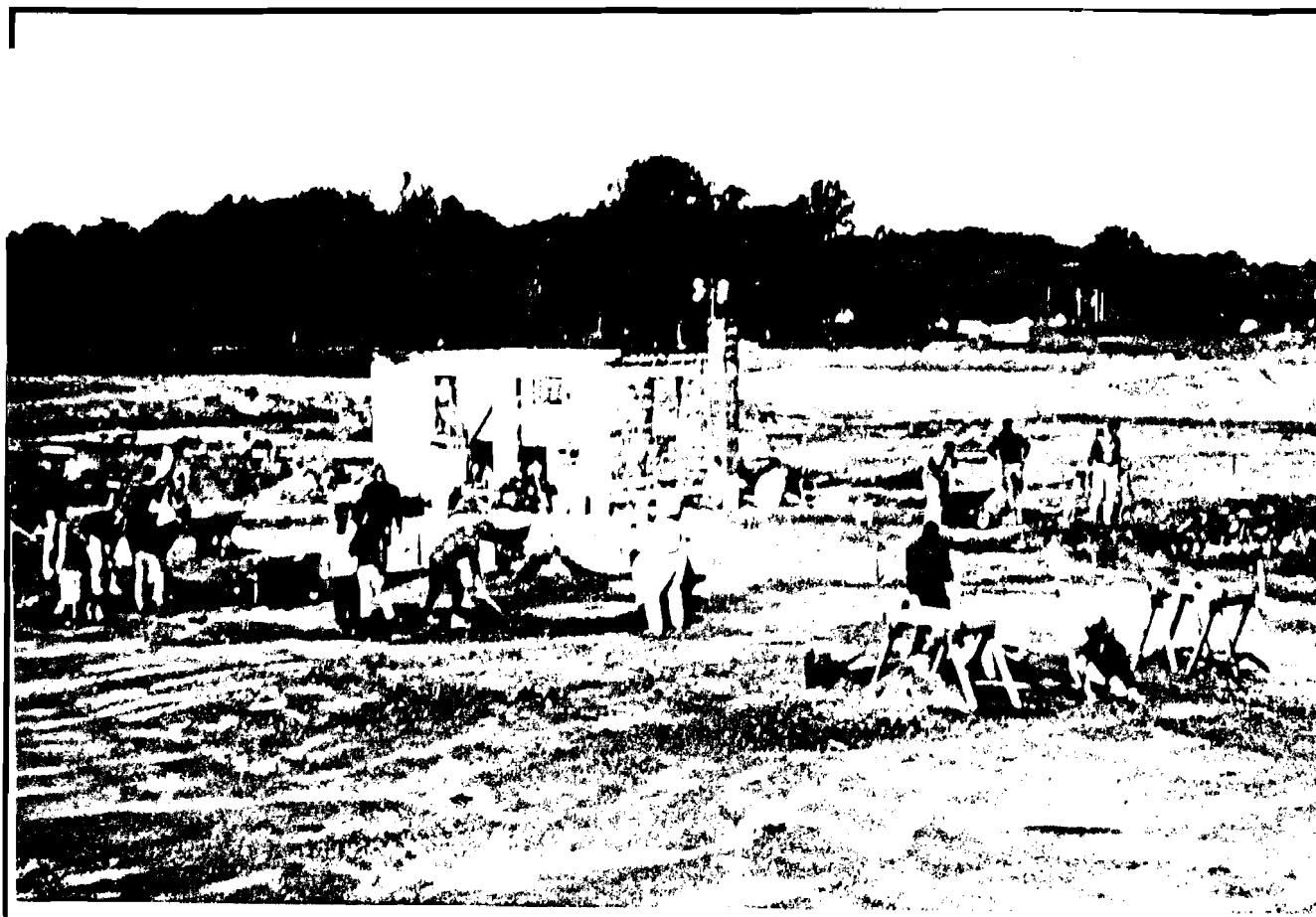


PLATE 8

Feature Excavations in Progress



Laboratory and Artifact Analysis Methods

Prior to a detailed artifact analysis, the standard artifact processing procedures of the Delaware Bureau of Museums were applied to all artifacts recovered from the data recovery excavations. All artifacts, bone, and shell were cleaned with plain water or, in the case of deteriorating bone, damp brushed. Bone and shell were then placed in labeled bags, while other artifacts were labeled with site numbers and a three-digit provenience number. Historic artifacts were sorted into categories based on their material composition, i.e., ceramics, bone, shell, nails, and glass.

After the initial inventory had been completed, ceramics recovered from all features of the C. Kimmey Tenant Farm Site were sorted by ware type, and vessel reconstruction and cross-mending were carried out to arrive at minimum vessel estimates. Vessels were then coded to a set of standard descriptive terms for analytical purposes and entered into a computerized relational database. Time-

PLATE 9

Recording Data on an Excavated Feature



sensitive attributes and use-related descriptive vessel attributes were included in the database. Glass, excluding window, mirror, and light bulb, from all features was sorted as to type, and vessel reconstruction and cross-mending were carried out to arrive at minimum vessel estimates. Vessels were coded to a set of standard descriptive terms for analytical purposes which were also entered into the database.

FIGURE 6

Seventeenth Century Map of the Aberdeen and Troy Land Grants

